March 17, 2008

Case No.: DE040015 (7790/493)

Serial No.: 10/585,369 Filed: JULY 5, 2006

Page 2 of 10

CLAIM AMENDMENTS

Please amend the claims as follows:

- 1. (Currently amended) DC/DC converter for use in a decentralized power generation system comprising:- a converting component for DC/DC converting a direct current supplied by a power generating unit and for supplying a resulting converted direct current to a DC bus; and a control component arranged to monitor a voltage at the outputs of said DC/DC converter and to cause said converting component to enter a short-circuit protection mode if said monitored voltage lies below a predetermined voltage threshold, wherein the direct current is set so the power generating unit operates in the Maximum Power Point.
- 2. (Original) DC/DC converter according to claim 1, wherein said control component is further arranged to cause said converting component to exit an entered short-circuit protection mode again, if said monitored voltage raises above said predetermined voltage threshold.
- 3. (Original) DC/DC converter according to claim 1, wherein said converting component is adapted to output a converted direct current repeatedly only for a short duration at a time in said short-circuit protection mode.
- 4. (Original) DC/DC converter according to claim 1, wherein said converting component is adapted to output a current limited to a predetermined maximum value in said short-circuit protection mode.
- 5. (Original) DC/DC converter according to claim 1, further comprising a short-circuiting component for temporarily short-circuiting the outputs of said DC/DC converter whenever said outputs are to be free of voltage.

March 17, 2008

Case No.: DE040015 (7790/493)

Serial No.: 10/585,369 Filed: JULY 5, 2006

Page 3 of 10

- 6. (Currently amended) Decentralized power generation system comprising: at least one power generating unit for generating a direct current; a DC bus for making a supplied current available to a power receiving component; and at least one DC/DC converter connected between said at least one power generating unit and said DC bus, said DC/DC converter including a converting component for DC/DC converting a direct current supplied by said at least one power generating unit and for supplying a resulting converted direct current to said DC bus, and said DC/DC converter further including a control component arranged to monitor a voltage at the outputs of said DC/DC converter and to cause said converting component to enter a short-circuit protection mode if said monitored voltage lies below a predetermined voltage threshold, wherein the direct current is set so the power generating unit operates in the Maximum Power Point.
- 7. (Original) Decentralized power generation system according to claim 6, further comprising at least one plug connection for connecting said at least one DC/DC converter to said DC bus, which plug connection comprises a short-circuiting component short-circuiting the outputs of said DC/DC converter automatically when said plug connection is opened and/or removing a short-circuit between the outputs of said DC/DC converter automatically when said plug connection is closed.
- 8. (Original) Decentralized power generation system according to claim 6, further comprising a central short-circuiting component for generating a short-circuit on said DC bus.
- 9. (Original) Decentralized power generation system according to claim 8, further comprising a power receiving component connected to said DC bus and adapted to cause said central short-circuiting component automatically to generate a short-circuit on said DC bus in case of a detected failure situation in said decentralized power generation system.

March 17, 2008

Case No.: DE040015 (7790/493)

Serial No.: 10/585,369

Filed: JULY 5, 2006

Page 4 of 10

10. (Currently amended) Method of operating a DC/DC converter in a decentralized power generation system, wherein said DC/DC converter is arranged between a power generating unit and a DC bus, said method comprising: - monitoring a voltage at the outputs of said DC/DC converter; - if said monitored voltage exceeds a predetermined voltage threshold, DC/DC converting a direct current received from said power generating unit and feeding a resulting converted current to said DC bus; and - if said monitored voltage lies below said predetermined voltage threshold, entering a short-circuit protection mode, wherein the direct current is set so the power generating unit operates in the Maximum Power Point.